Fig. 1

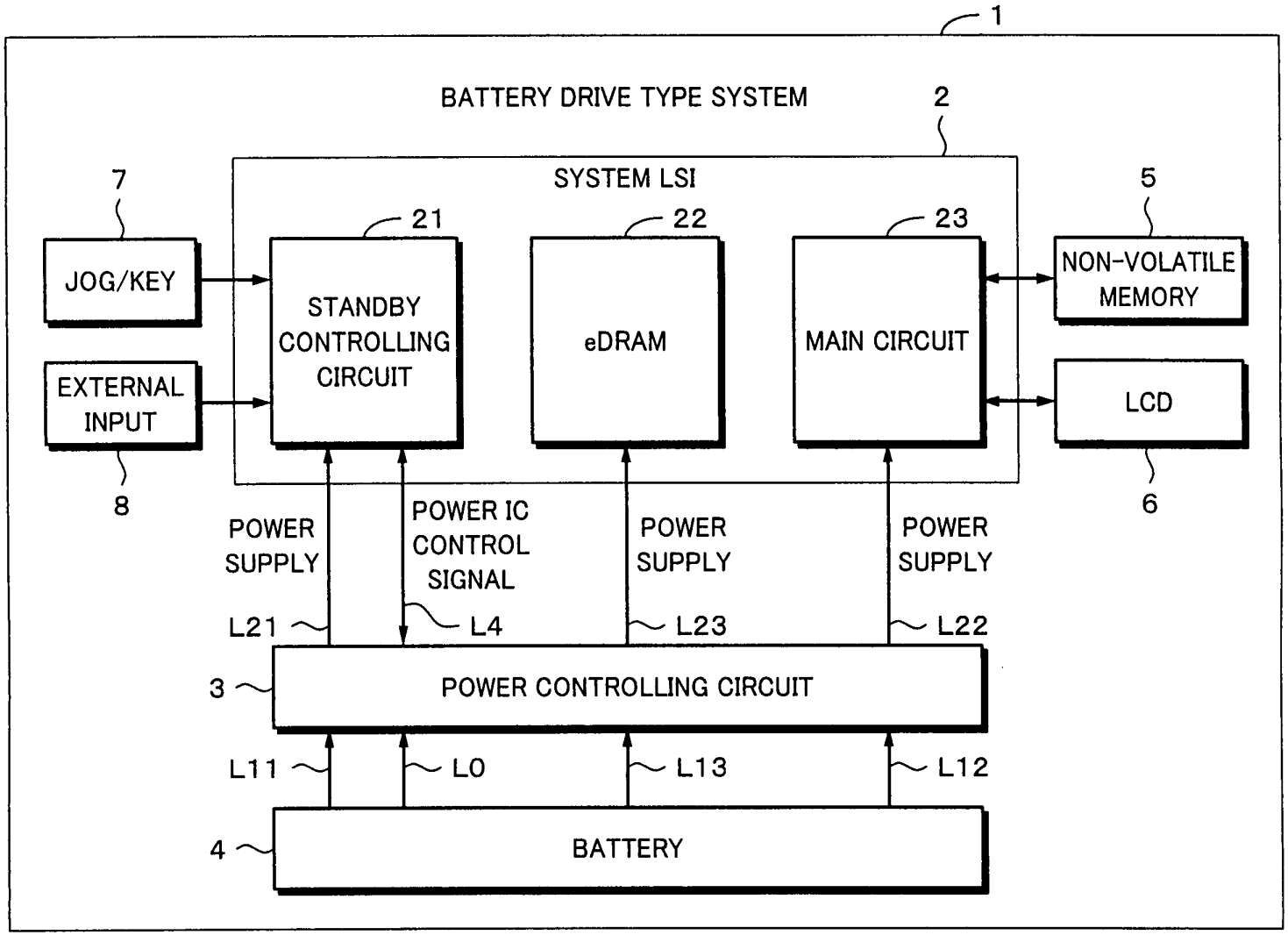

1
BATTERY DRIVE TYPE SYSTEM
2
SYSTEM LSI
7
JOG/KEY
EXTERNAL INPUT
8
21
STANDBY CONTROLLING CIRCUIT
22
eDRAM
23
MAIN CIRCUIT
5
NON-VOLATILE MEMORY
LCD
6
POWER SUPPLY
POWER IC CONTROL SIGNAL
POWER SUPPLY
POWER SUPPLY
L21
L4
L23
L22
3
POWER CONTROLLING CIRCUIT
L11
L0
L13
L12
4
BATTERY

Fig. 2

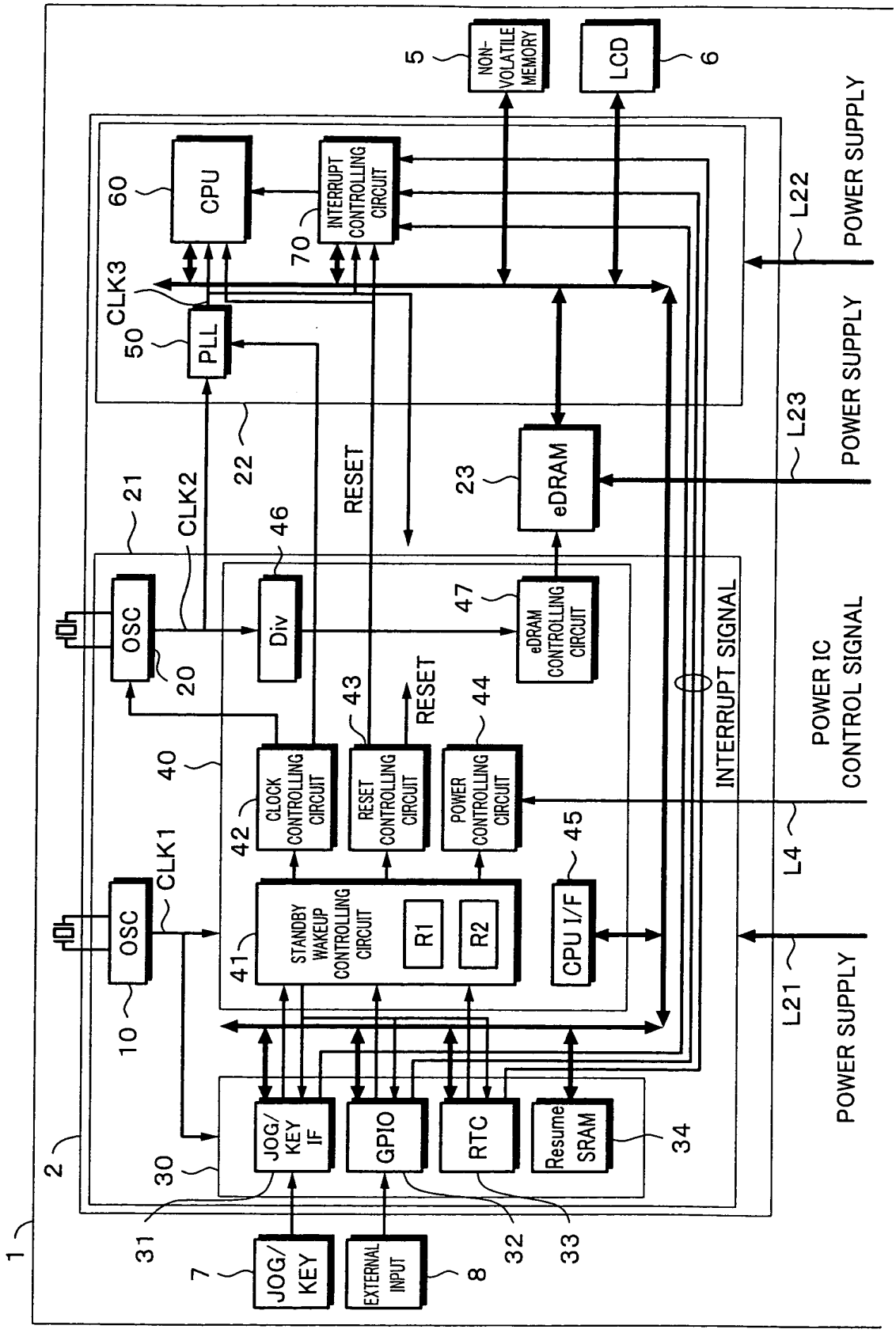

1
2
5
NON-VOLATILE MEMORY
6
LCD
60
CPU
70
INTERRUPT CONTROLLING CIRCUIT
50
PLL
CLK3
22
RESET
23
eDRAM
L22
L23
POWER SUPPLY
POWER SUPPLY
21
CLK2
46
OSC
20
Div
47
eDRAM CONTROLLING CIRCUIT
INTERRUPT SIGNAL
POWER IC CONTROL SIGNAL
40
43
RESET
44
42
CLOCK CONTROLLING CIRCUIT
RESET CONTROLLING CIRCUIT
POWER CONTROLLING CIRCUIT
L4
CLK1
OSC
10
41
STANDBY WAKEUP CONTROLLING CIRCUIT
R1
R2
45
CPU I/F
L21
POWER SUPPLY
30
JOG/ KEY IF
GPIO
RTC
Resume SRAM
34
31
32
33
7
JOG/ KEY
EXTERNAL INPUT
8

Fig. 3

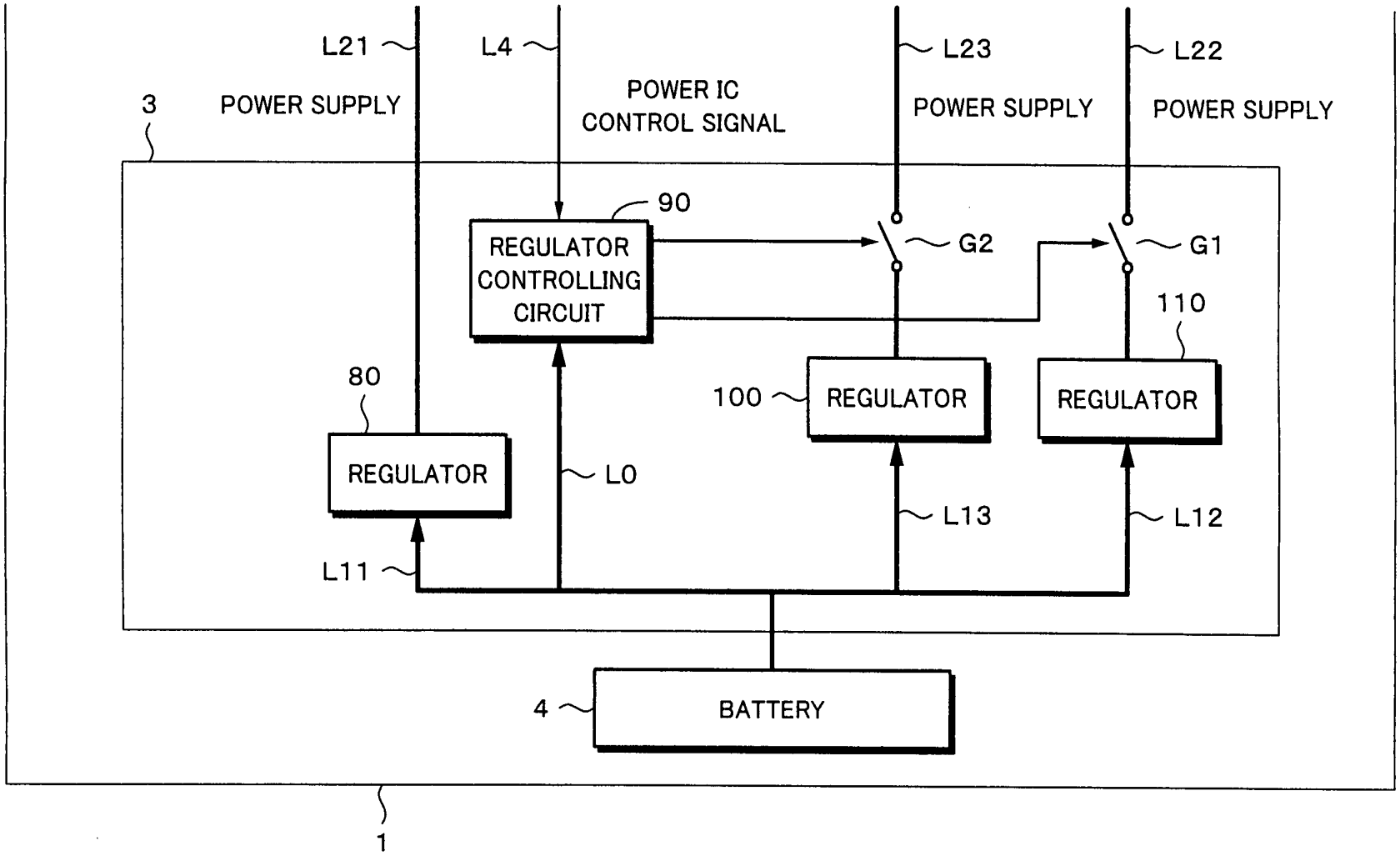

L21
L4
L23
L22
3
POWER SUPPLY
POWER IC
CONTROL SIGNAL
POWER SUPPLY
POWER SUPPLY
90
REGULATOR
CONTROLLING
CIRCUIT
G2
G1
110
80
100
REGULATOR
REGULATOR
REGULATOR
L0
L13
L12
L11
4
BATTERY
1

Fig. 4

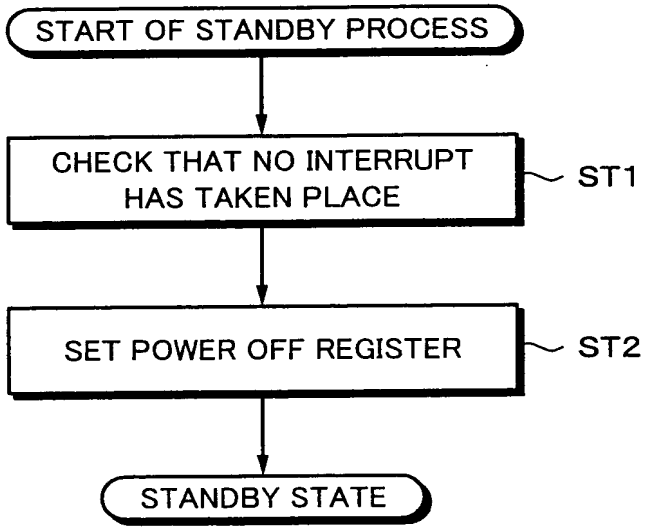

START OF STANDBY PROCESS
CHECK THAT NO INTERRUPT HAS TAKEN PLACE
ST1
SET POWER OFF REGISTER
ST2
STANDBY STATE

Fig. 5

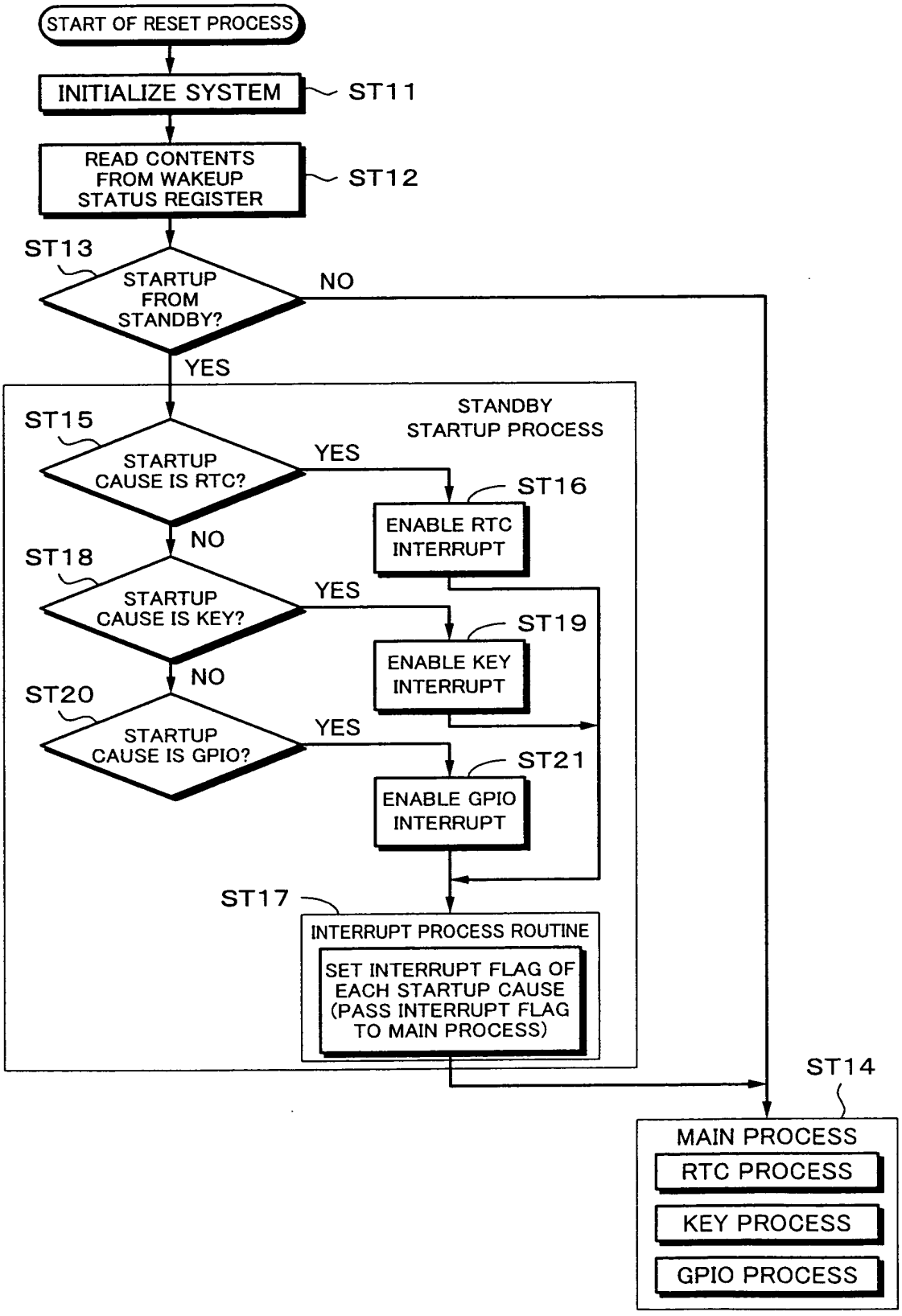

START OF RESET PROCESS
INITIALIZE SYSTEM
ST11
READ CONTENTS FROM WAKEUP STATUS REGISTER
ST12
ST13
STARTUP FROM STANDBY?
NO
YES
STANDBY STARTUP PROCESS
ST15
STARTUP CAUSE IS RTC?
YES
ST16
ENABLE RTC INTERRUPT
NO
ST18
STARTUP CAUSE IS KEY?
YES
ST19
ENABLE KEY INTERRUPT
NO
ST20
STARTUP CAUSE IS GPIO?
YES
ST21
ENABLE GPIO INTERRUPT
ST17
INTERRUPT PROCESS ROUTINE
SET INTERRUPT FLAG OF EACH STARTUP CAUSE (PASS INTERRUPT FLAG TO MAIN PROCESS)
ST14
MAIN PROCESS
RTC PROCESS
KEY PROCESS
GPIO PROCESS

Fig. 6

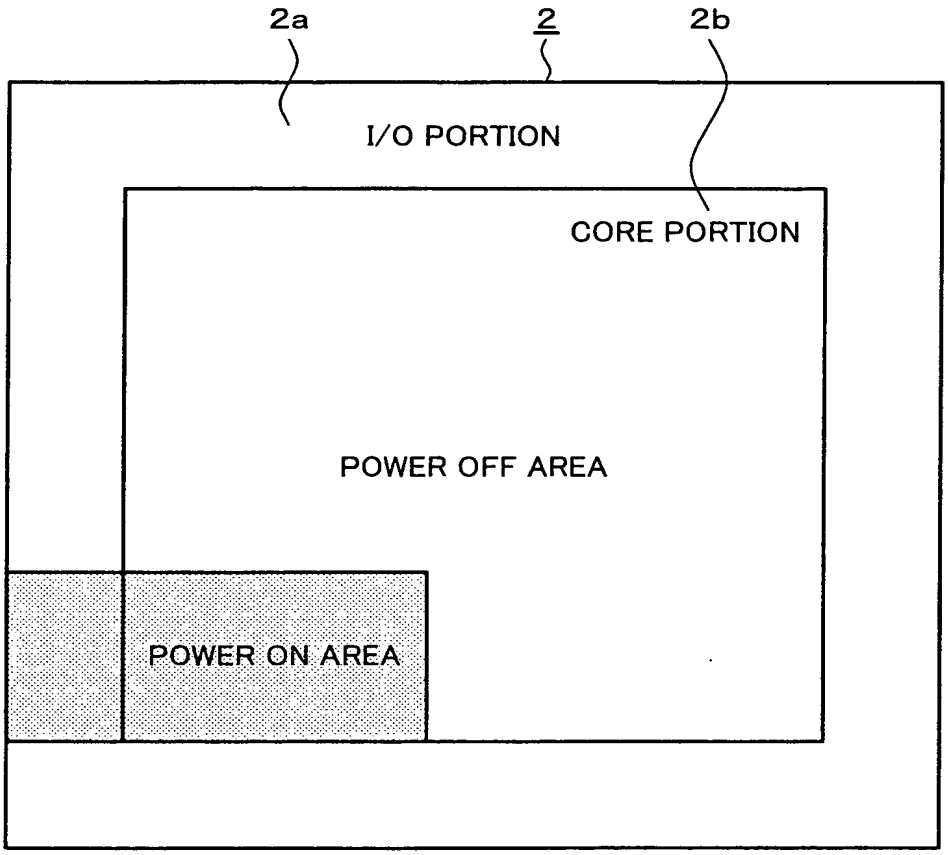


Fig. 7

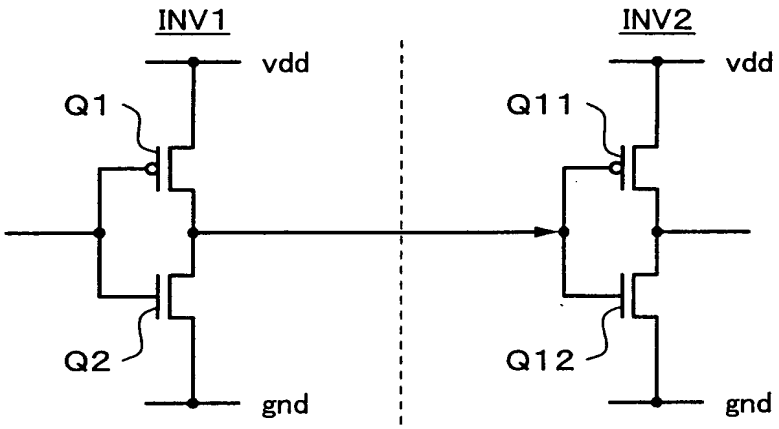

INV1
INV2
vdd
vdd
Q1
Q11
Q2
Q12
gnd
gnd

Fig. 8

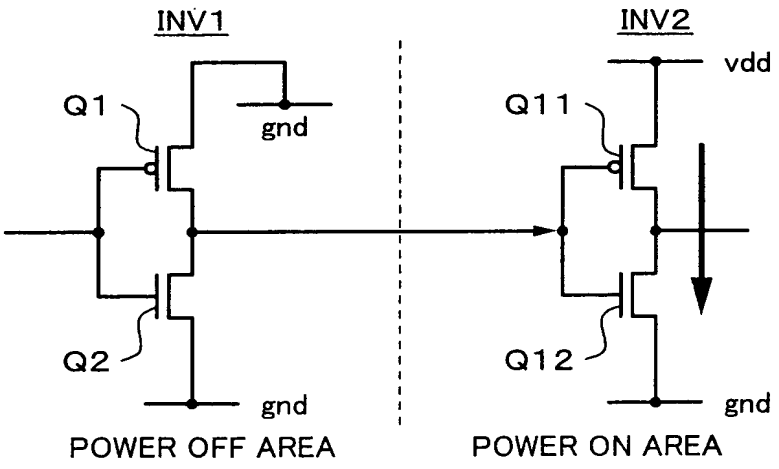

INV1
INV2
vdd
Q1
gnd
Q11
Q2
Q12
gnd
gnd
POWER OFF AREA
POWER ON AREA

Fig. 9

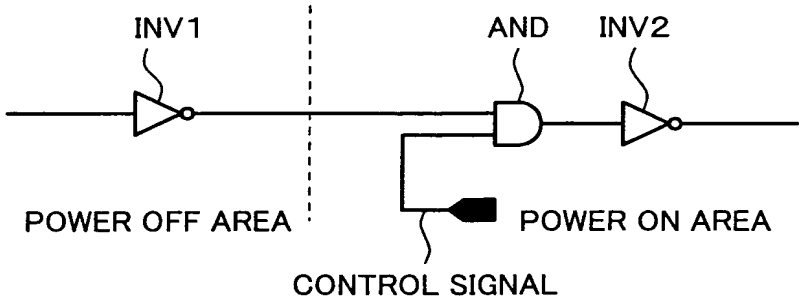
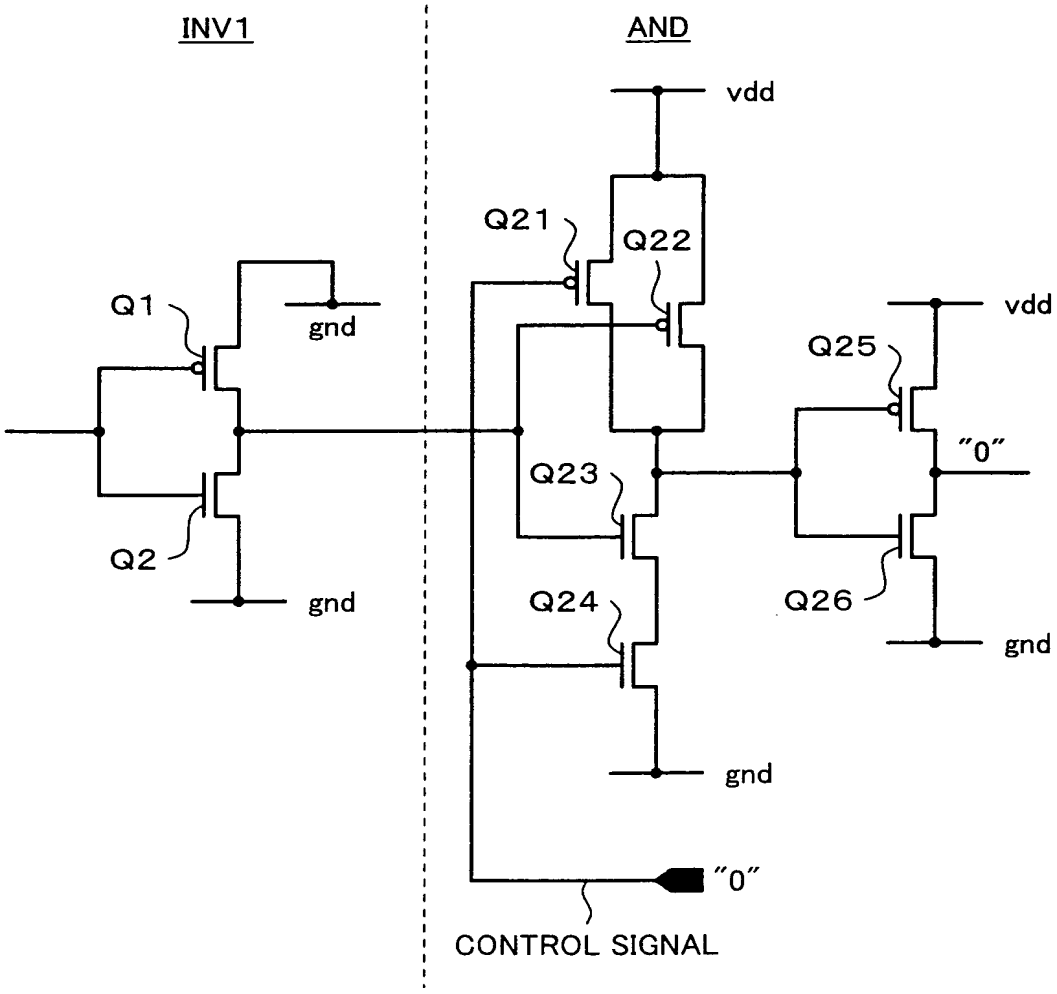

INV1
AND
INV2
POWER OFF AREA
POWER ON AREA
CONTROL SIGNAL

Fig. 10


INV1
AND
vdd
Q21
Q22
Q1
gnd
vdd
Q25
"0"
Q23
Q2
gnd
Q24
Q26
gnd
gnd
"0"
CONTROL SIGNAL